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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,310	02/13/2001	Joseph Breeden	P 272852	7942
27160 7590 01/18/2007 PATENT ADMINISTRATOR KATTEN MUCHIN ROSENMAN LLP 1025 THOMAS JEFFERSON STREET, N.W. EAST LOBBY: SUITE 700 WASHINGTON, DC 20007-5201			EXAMINER COLBERT, ELLA	
			ART UNIT	PAPER NUMBER
			3694	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/18/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/781,310	<b>Applicant(s)</b> BREEDEN ET AL.	
	<b>Examiner</b> Ella Colbert	<b>Art Unit</b> 3694	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 October 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 67,88-92,94-96 and 104-112 is/are pending in the application.
- 4a) Of the above claim(s) 104-112 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 67,88-92 and 94-96 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

1. Claims 67, 88-92, 94-96, and 104-112 are pending. Claims 67, 88-92, and 94-96 have been amended, claims 104-112 have been added, and claims 68-87, 93, and 98-100 have been cancelled in this communication filed 10/18/06.
2. The claim objection to claim 91 has been overcome by applicant's cancellation of claim 91 and this objection is considered moot.

### ***Restriction by Original Presentation***

3. Newly submitted claims 104-112 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 104 is directed to determining a vintage maturation curve of delinquency rate, developing an external impact scaling factor for the vintage maturation curve, and forecasting the performance of a vintage loan account based upon the vintage maturation curve and scaling factor and independent claim 67 is directed to the decomposing of vintage performance data of loan accounts using an age component and a calendar time component.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 104-112 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Drawings***

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4. The drawings are objected to because Figure number 6 needs the shading removed. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

5. The Specification is objected to because Page 6, line 4 recites "17<sup>th</sup> month". This line would be better recited as "seventeenth month". Correction is required. See MPEP § 608.01(b).

#### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 67, 88-92, and 94-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,240,775) Freeman et al, hereafter Freeman in view of (US 6,233,566) Levine et al, hereafter Levine.

As per Claim 67, Freeman discloses, A method of predicting the behavior of vintage loan accounts, the method comprising the steps of: (a) receiving vintage performance data of said past loan accounts (col. 3, lines 10-21- "summary of the invention"). Freeman further discloses, Step (c ) forecasting the behavior of said vintage loan accounts based upon said age and said calendar time component (Figure 1A, Figures 2-4, and col. 8, lines 9-44). Freeman did not disclose (b) decomposing said vintage performance data of said loan accounts by an age component and a calendar time component, wherein steps (a) and (b) are performed by a processor. Levine discloses (b) decomposing said vintage performance data of said loan accounts by an age component and a calendar time component, wherein steps (a) and (b) are performed by a processor (col. 9, lines 40-49, col. 14, lines 32-41, figure 2B (244), figure 7, and Figure 24- shows date(s)). Freeman and Levine do not expressly disclose a processor. However, Freeman does disclose "a general purpose programmable computer where the general purpose computer communicates with a local database which receives a wealth of statistical and specific information about various loans from diverse sources" and Levine does disclose an IBM or compatible PC workstation in col. 10, lines 47 and 48 which would be obvious to skilled artisan for the computer to have a

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processor because a Central Processing Unit (CPU) is a part of the computer where arithmetic and logical operations are performed and instructions are decoded and executed and the CPU controls the operation of the computer. The CPU is the "brains" of a computer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to decompose the vintage performance data of the loan accounts by an age component and a calendar time component with steps (a) and (b) being performed by a processor and to modify in Freeman because such a modification would allow Freeman to have the capability to decompose the vintage performance data of the loan accounts according to the date and year of the origination and the time on the books to determine if the loan account has been paid in full or a foreclosure has resulted.

With respect to claim 88, Freeman discloses, The method as recited in claim 67, wherein step (b) includes the step of modeling calendar time performance data to compensate for one or more exogenous effects (col. 6, line 60- col. 8, line 11 and Figures 2 and 3).

With respect to claim 89, Freeman teaches, The method as recited in claim 88, wherein step (b) includes the step of modeling calendar time performance data to compensate for seasonal effects (col. 8, lines 1-32, col. 12, line 59-col. 13, line 4, col. 15, lines 20-34 and lines 56-64, and figure 1A). Freeman does not expressly disclose seasonal effects. However, Freeman does disclose "unemployment" which is considered a seasonal effect. For example, more people are unemployed in the winter

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as opposed to the summer because people who work in construction work do not usually work during the winter.

With respect to claim 90, Freeman did not disclose, The method as recited in claim 88, wherein step (b) includes the step of modeling calendar time performance data to compensate for management actions. Official notice is taken that it is well-known that performance data compensates for management actions when in a model. It would have been obvious to one having ordinary skill in the art at the time the invention was made to model the calendar time performance data to compensate for management actions and to modify in Freeman because such a modification would allow Freeman to have the ability to forecast the performance of the data according to management's behavior. For example, management makes some unwise decisions that would affect the risk taken with a loan or loans and makes wrong predictions of the loans performance.

With respect to claim 91, Freeman did not disclose, The method as recited in claim 88, wherein step (b) includes the step of modeling calendar time performance data to compensate for competitive influences. Official notice is taken that this is well-known in the art for performance data to compensate for competitive influences. It would have been obvious to one having ordinary skill in the art at the time the invention was made to model the calendar time performance data to compensate for competitive influences and to modify in Freeman because such a modification would allow Freeman to adjust the matrix curve to compensate for the competitive influences and to predict

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the "roll-rate" forecast which provides the first component for the forecast and to receive an early warning sign of the performance data of the loans.

With respect to claim 92, Freeman did not expressly disclose, The method as recited in claim 88, wherein step (b) includes the step of modeling said calendar time performance data to compensate for marketing campaigns. Official notice is taken that to have a marketing campaign is well-known in the art of processing of loans. It would have been obvious to one having ordinary skill in the art at the time the invention was made to model the exogenous factor performance data to compensate for marketing campaigns and to modify in Freeman because such a modification would allow Freeman to have to find a better suited offer for the loan portfolio through another bank or institution.

With respect to claim 94, Freeman discloses, The method as recited in claim 88, wherein step (b) includes the step of modeling said calendar time performance data to compensate for economic conditions (col. 12, line 59- col. 13, line 4).

With respect to claim 95, Freeman discloses, The method as recited in claim 88, wherein step (b) includes the step of modeling said calendar time performance data to compensate for management history (col. 7, lines 5-30 and line 42-col. 8, line 11).

With respect to claim 96, Freeman discloses, The method as recited in claim 88, step (c ) includes the step of determining the demographic characteristics of said past loan accounts in order to predict the future performance of said vintage loan accounts (col. 7, lines 13-30 and col. 12, line 59-col. 13, line 23).

***Response to Arguments***

8. Applicant's arguments filed 1/30/06 been fully considered but they are not persuasive.

Issue no. 1: Applicant argues: It is respectfully submitted that the Levine et al patent does not disclose a system for decomposing vintage loan performance data into an age related component and an component not related to the age of the loans ... account. First, ... has been considered but is not persuasive. Response: It is respectfully submitted that the Examiner interprets Levine et al to disclose the life cycle of a loan which includes the decomposing (age) of the loan and the loan's performance including calendar time. Fro example, when an individual applies for a 30 year loan, the loan goes through a calendar component (time on the books) before the loan reaches maturity.

Issue no. 2: Applicant argues: It is respectfully submitted that the Examiner has failed to establish a prima facie case of obviousness as set forth in the MPEP 2143 has been considered but is not persuasive. Response: It is respectfully submitted that the establishment of a prima facie case of obviousness is a test of obviousness is not whether the features of the secondary reference may be bodily incorporated into primary reference's structure, nor whether the claimed invention is expressly suggested in any one or all of the references; rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. *In re Keller*, 208 USPQ 871 (CCPA 1981).

**Conclusion:** Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the Examiner has determined is reasonably necessary to the examination of this application. In response to this requirement, please state the specific improvements of the subject matter in claims 67, 88-92, and 94-96 over the disclosed prior art and indicate the specific elements in the claimed subject matter that provide those improvements. For those claims expressed as means or steps plus function, please provide the specific page and line numbers within the disclosure that describe the claimed structure and acts. The information requested of the inventor and the assignee as per MPEP §704.10 and 37 CFR 1.105 (a)(1) is as follows:

- (i) Commercial Databases
- (ii) Search
- (iii) Related Information
- (iv) Information used to draft application
- (v) Information used in invention process
- (vi) Improvements
- (vii) In Use
- (viii) Technical information known to applicant
- (ix) Where the formulas for equations 1-6 and equations 2 and 3 on page 19 and equation 4 and page 20 of the disclosure were taken from. Are they the Applicant's own formulas or did they come from a textbook or some other source?

In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure.

This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

**Suggestion in an effort to move the application toward allowance:**

Incorporating at least one of the equations 1-6 or 2-3 on page 19 or equation 4 on page 20 provided the Applicant can provide evidence as to what source the equations were taken from or evidence that the equation(s) are the Applicant's own statistical formulas. When incorporating equations into the body of independent claims, the equation(s) must be exactly written as they are in the disclosure. There cannot be any deviations from the equation(s) in the disclosure.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### **Inquiries**

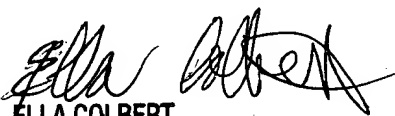
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 571-272-6741. The examiner can normally be reached on Monday, Tuesday, and Thursday, 5:30AM-3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 571-272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 6, 2007

  
ELLA COLBERT  
PRIMARY EXAMINER